

Spring 2022

## **CE 616-102: Construction Cost Estimating**

Giri Venkateela

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JOHN A. REIF, JR. DEPARTMENT OF  
CIVIL AND ENVIRONMENTAL  
ENGINEERING



## CE 616 - Construction Cost Estimating Spring 2022

**Text:** Estimating In Building Construction, Ninth Edition, Frank R. Dagostino and Steven J. Peterson  
Published By: Prentice Hall

**Instructor:** Professor Giri Venkiteela: email address: [venkitee@njit.edu](mailto:venkitee@njit.edu)

**Prerequisite:** CE 610

**Course Description:** This course objective is to learn construction cost estimation by understanding basic principles, advanced computerized tools and current research.

**Course Outcomes:** Upon successful completion of this course, students should specifically be able to do the following:

1. Understand the estimating and quantity take-off process and how they are associated with construction cost control.
2. Understanding the construction bidding process
3. Knowledge on current tools and technologies used in construction cost estimation

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### Grading:

Midterm	25%
Final	20%
Project Report/ Presentation	35% (30%/5%)
Homework	10%
Research article review	10%

Schedule:

<b>Week-1</b>	Introduction to Estimating Contract Documents	
<b>Week-2</b>	Contracts, Bonds, Insurance Project Manual	<b>HW#1</b>
<b>Week-3</b>	Estimate Quantity Takeoff	<b>HW#2</b>
<b>Week-4</b>	Excavation	<b>HW#3</b>
<b>Week-5</b>	Masonry Metal Wood	<b>HW#4</b>
<b>Week-6</b>	Concrete Concrete Estimating	
<b>Week-7</b>	Midterm	<b>Midterm Exam</b>
<b>Week-8</b>	Spring Break	
<b>Week-9</b>	Thermal and Moisture Protection Doors and Windows Finishes	<b>RAR#1 Assignment of Project Bid</b>
<b>Week-10</b>	Mechanical Insulation Estimating HVAC/Plumbing Industrial Equipment	<b>RAR#2</b>
<b>Week-11</b>	Scheduling	<b>RAR#3</b>
<b>Week-12</b>	Anatomy of a Construction Project Construction Cycle Types of Construction Projects Types of Construction Users	<b>HW#5</b>
<b>Week-13</b>	Value Engineering	
<b>Week-14</b>	Business Development in the Construction Industry Marketing Plan Project ID Prequalification Developing Relationships	
<b>Week-15</b>	Project due	<b>Project report and Project presentation slides due</b>
<b>Week-16</b>	Final	<b>Final Exam</b>